REMARKS/ARGUMENTS

Reconsideration of the application is respectfully requested.

In accordance with one aspect of the present invention, a force sensor 13 is assigned to the gas lever 6 and/or the guide bush 5 (see FIG. 1). Upon sensing a force with sensor 13, regulating device 9 is connected to load and actuates the spindle 2. Due to this configuration, the pilot does not have to set the spindle 2 in corresponding rotation manually by his own force under any circumstances in order to change an operating state of an adjoining engine.

Independent claims 1, 15, and 16 each clearly recite this force sensor and indicate that it is operatively associated with the regulating device for switching on the regulating device upon sensing a force applied to the gas lever.

The examiner asserts that this subject matter is taught by British Patent GB 2,114,717 to Hill et al. The examiner points to position sensor 33 of Hill et al. as meeting the force sensor limitation of these claims. Reconsideration of this holding is specifically and respectfully urged. The examiner asserts that the position sensor inherently acts as a force sensor. This is not true. There are many forces which could be applied to the sensor of Hill et al. which would not result in movement, and which therefore would not be sensed. Further, Hill et al. does not disclose this structure as being a force sensor. The structure and function of Hill et al. are taught as a position sensor, and this is drastically different than the subject matter of the present claims. In fact, the sensor set forth in Hill et al. is precisely the type of sensor which would force the user to set components in corresponding rotation, manually, by manual force, in order to change an operating state of the

controlled device. This is clearly contrary to the thrust of the present invention. See, for example, page 4 of the specification, lines 14-16.

The examiner asserts that "the force applied to move the drive mechanism in Hill et al. can be derived from the position signal by taking a time derivative, as is well known". It is respectfully submitted that the Hill et al. device could convey many different types of signals related to the position of the drive mechanism, without providing any signal whatsoever which could be used as the basis for mathematical analysis to determine what force was applied. Although the examiner asserts that such a calculation is well known, it is respectfully submitted that this takes for granted something which is not taught by Hill et al., that being whether the signal indeed contains sufficient information for this mathematical analysis. Furthermore, such an analysis is not even remotely suggested by Hill et al.

Based upon the foregoing, reconsideration of the rejection of independent claims 1, 15, and 16 based upon Hill et al. is respectfully requested.

Responsive to this very point, on page 4 of the action, the examiner states that Hill et al.'s position sensor is effectively functioning as a force sensor. This is clearly not true since there are, as set forth above, many forces which would not be sensed at all by the sensor of Hill et al. Further, the examiner's assertion that force could be obtained using the position sensor by taking a second order time derivative of the position does not support anticipation of claims 15 and 16, nor obviousness of independent claim 1. Specifically, the structure of Hill et al. may or may not provide sufficient information to perform this analysis.

In order to anticipate the subject matter of claims 15 and 16, Hill et al. must disclose each and every feature of the claim. The position sensor of Hill et al. is clearly not a force sensor. The fact that the examiner speculates that additional calculations and steps could be taken to cause the position sensor in some instances to operate as a force sensor does not make the teaching of the position sensor a force sensor. Thus, independent claims 15 and 16 are clearly not anticipated by Hill et al.

In addition, the examiner rejected claim 1 as obvious, relying upon a secondary reference for the trapezoidal screw. The defect in this rejection remains as in the defect with the rejection of claims 15 and 16, specifically, the prior art clearly does not disclose or suggest the force sensor as set forth in claim 1.

To reiterate, the prior art teaching of Hill et al. possesses the very same disadvantages which are overcome by the claimed invention, that is, sufficient force must be exerted to cause position change before the sensor will detect anything. Thus, the position sensor of Hill et al. clearly possesses the disadvantages overcome by the present invention.

Dependent claims 2-3, 5-14, and 17 all depend directly or indirectly from one of the three independent claims discussed above and are submitted to be allowable based upon this dependence. Further, each of these dependent claims is submitted to be allowable based upon its own content. Specifically, dependent claims 5 and 17 contain limitations drawn specifically to the positioning of the force sensor which allows sensing of force applied to gas lever 6 before guide bushing 5 or spindle 2 begins to move is allowed. It is this positioning of the sensor which advantageously allows for sensing of force as desired in

accordance with the present application. The examiner has stated in the action that this positioning would be a matter of obvious design choice. This holding is respectfully traversed, and reconsideration is respectfully requested. Nothing in the prior art discloses or suggests such positioning of the sensor, and this positioning clearly results in desirable function as set forth in the present specification by allowing the sensing of a force before any movement results from the force, thereby allowing assistance to be provided by the system.

In connection with independent claim 18, reconsideration of this rejection is respectfully requested. Hill et al. teach away from the asserted combination of prior art. Hill et al. teach at page 5, lines 111-116, that a ball-screw configuration is preferred. Senjo does not contain teaching sufficient to override the teachings of Hill et al. Reconsideration of the rejection of claim 18 is therefore respectfully requested.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on May 27, 2004.

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Antoinette Sullo